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Risk as a Resource: On the Interplay between Risks, Vaccinations and Welfare States in Nineteenth- and Twentieth-Century Germany

Malte Thießen *

Abstract: »Zum Zusammenspiel von Risiken, Impfungen und Staatlichkeit im Deutschland des 19. und 20. Jahrhunderts«. Vaccinations protect from infections, reduce infant mortality, and increase the standard of living. They enable a modern risk management. However, vaccinations require a risk management also in a very different sense: the danger of side effects and fatal incidents questions the benefits of vaccination up to the present day. Therefore, vaccination programs pose fundamental questions. What weighs more: a risk for the common good – or a risk to the individual? The article pursues the history of this risk management in Germany, and analyzes the interaction of risk ideas and concepts of social order. I focus on communication strategies for vaccination that came into use in the twentieth century that could not any longer rely on coercive measures. They also needed to appeal to the public and resort to "risk" as a public argument. The article therefore examines risk discourses with which the population should be convinced of the necessity of precautionary measures. The main thrust of the article will be that this kind of risk management was a prerequisite for a 'social engineering,' with which the idea of the "preventive self" was raised to the leading figure of modernity since the 1940s.

Keywords: Vaccination, prevention, precaution, compulsory vaccination, social states.

1. Introduction

Vaccinations are modernity's dreams. They lower health risks, drive out fears of epidemics, and help to reduce infant mortality. As a result, immunity against life-threatening diseases is a promise and condition of modern life. Today, Western societies consider epidemics like diphtheria, polio, smallpox, or tuberculosis as menaces of dark times long past. In truth, this condition is quite young. While public immunization programs against smallpox were established in nineteenth-century Europe, vaccinations against diphtheria and tuberculosis

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were only introduced in the 1920s and 1930s, and those against polio and measles even not until the 1950s and 1960s. In this regard, the history of vaccinations is a story about social change in modern ages and a genealogy of security and risk concepts until today.

Risks are challenging. This is not only true in daily life. Moreover, risk concepts pose a challenge for social and historical research. Ulrich Beck's concept of "Risk Society" (Beck 1986, 1992) ignited a debate about risk concepts that continues until today (Adam, Beck and van Loon 2000; Mythen 2004; Denney 2005). The intensity and longevity of these debates also hinge upon the fact that it not only revolved around risks as such. Rather, researchers of "risk society" expand their argumentation to also include interpretations of modernism and postmodernism, the changes of industrial society, and processes of globalization and individualization in the twentieth century. Consequently, new techniques, measures, and interventions not only improved security, welfare, and prosperity, but increased and even invented new dangers, threats, and risks of modern life.

Risk society is a fertile field of research for historians, too (see Itzen and Müller 2016, in this HSR Special Issue). The fertility of this field of research is all the greater if one considers recent research on the history of "endangered orders" (Frie and Meier 2014), the history of "securitization" (Conze 2012), or the history of provision, precaution, and prevention (Harremoës, et al. 2002; Bröckling 2008; Lengwiler and Madarasz 2010; Sarasin 2011; Thießen 2013a), who all operate with the risk term. But what insights does a "risk history" provide? Which findings of the social sciences could historians integrate and build upon? In the following, I will highlight three findings of the social science debate on risk that also give new impetus to researching risk history.

First, "risk" is historical. For historians, the historicity of risk concepts may seem trivial. In social science research, however, it is not self-evident. Ulrich Beck has not least been criticized for not considering the historical backgrounds of the phenomena he studied enough. Therefore, historian Mitchell Dean asked for research on a "genealogy of risk" that should focus on specific historical contexts and formations: "It is clear," according to Dean

that the genealogy of risk is much more complex than the theory of risk society allows. Risk and its techniques are plural and heterogeneous and its significance cannot be exhausted by a narrative shift from quantitative calculation of risk to the globalization of incalculable risks (Dean 1999, 145).

A risk history thus should ask for different social and historical contexts of risk concepts in order to trace the roots of the "risk society" in the *longue durée*.

Second, "risk" is a resource for social change. As Deborah Lupton has pointed out, risks cannot only be regarded as threats, but as a chance for social development (Lupton 199, 148). "Risk taking," as Gabe Mythen summarizes this observation, "can be a socially progressive process" (Mythen 2004, 181). Peter L. Bernstein offers an extreme example for this kind of interpretation. He even

declares modern risk-management as a foundation of human progress as a whole (Bernstein 1996). However, risk concepts also define risky social behavior, “risk factors” or “risk groups,” and what is “good” or “bad” for society. “Risk” therefore also serves as a resource of standardization, mobilization, or negotiation of social norms. A history of risk therefore gains insights into the mentalities of societies and into the social and cultural history of politics (Mergel 2002).

Third, risk-concepts are a resource of legitimation and professionalization. In modern times, the management of risks became a technique of the “pension and welfare state.” The unpredictable, according to Ulrich Beck, is “designed to be predictable, the not-yet-occurred is the subject of current (preventive) action” (Beck 2007, 202). Martin Woollacott characterizes the ties between prevention and risk management in welfare states as intricately linked. Moreover, the containment of future dangers has “gradually become the main business of government” (Woollacott 1998, 120). In this regard, state legitimacy is inseparably tied with risk management. *L’État Providence* or the “Precaution State” (Ewald 1986) proves its expertise in controlling future risks: “To calculate a risk is to master time, to discipline the future. To provide for the future does not just mean living from day to day and arming oneself against ill fortune, but also mathematizing one’s commitment” (Ewald 1991, 207).

These three aspects, the historicity of risk concepts, the social functions of risk, and the relationship between risk management and welfare states, can and should stimulate historical research. They represent the starting point for my contribution that focuses on risk concepts as a resource for regulating and mobilizing societies. With examples from Germany between the 1870s and 1970s, I analyze vaccination programs as “social engineering.” My focus on Germany allows me to analyze the changing of risk concepts in different social systems – from the German Empire since 1870 to the Weimar Republic, the Third Reich into the Federal Republic. Moreover, such a long-term perspective offers insights into the “prehistory” of what we have been discussing since the 1980s as “risk society.” In this respect, my article picks up Dean’s approach to a “genealogy of risk” and extrapolates how social engineers such as politicians, medical officers of health, or physicians used risk concepts for convincing, mobilizing, and controlling German society. Before doing so, I will briefly outline the relationship between risk concepts, vaccinations, and welfare states.

2. Risk and the “Precaution State” – Perspectives of a History of Vaccination

Since the introduction of immunization campaigns in the nineteenth century, dreaded diseases such as smallpox, diphtheria, tuberculosis, and polio disappeared from daily life – at least in Europe and North America. The vanishing of diseases was not just a medical issue, but a cause of national importance, ac-

cording to historian Peter Baldwin (Baldwin 1999). After all, the triumph of vaccination was linked to the emergence of modern welfare states since the late nineteenth century. Vaccination programs stood at the top of the agenda of health policies. These programs thoroughly changed contemporaries' ideas about the state itself. Debates evolving around health risks, vaccination measures, and precaution concepts were not only about life and death, but about society as a whole.

Public negotiations of vaccination focused on two issues, the capability and power of the Western welfare state and the rights (and risks) of its inhabitants. Vaccination programs, and with them the seeming success in risk management, demonstrated and legitimized state power. Plagues may even be called a "dream" of those in power, according to Michel Foucault. Disease outbreaks gave "the sample to the ideal exercise of disciplinary power." The state virtually "dreamed" of the disease, "to make the perfect disciplines work" (Foucault 1994, 255). In this respect, epidemics were not so much a threat, but an opportunity for the "precaution state" that emerged in the Western world in the nineteenth century. Preventing infectious diseases demonstrated its capacity to take action and care for its citizens. The effects of this preventive function can even be felt until today. The lower the risk of infectious diseases appears to be for us, the more even small outbreaks seem to reveal a failure of the state's risk management ability (Lupton 1993). Scandals about small pox introductions to Europe in the 1950s and 1960s, debates about AIDS in the 1980s (see the contribution of Sebastian Haus 2016, in this HSR Special Issue), or the global hysteria around swine influenza, avian flu, SARS, and Ebola since the turn of the millennium offer some examples of the continuing legitimization function of vaccination programs (Schildt 2014; Tümmers 2013, 2014; Lindner 2014). Beyond aspects of risk governance, negotiating vaccination programs also raised questions on individual risk and rights. Vaccinations not only allowed risk management on a collective level. They also required risk management on the individual level. In rare cases, vaccinations could and can have side effects that might lead to illness or even cause the death of the vaccinated. Vaccinations fueled an individual consideration between risk of illnesses and the risk of side effects.

Both of these dimensions of risk management – the lowering of collective health risks by vaccination programs and the individual risk consideration with respect to possible side effects of vaccination – have existed in a state of tension since the nineteenth century. Since the 1870s, this tension divided the German society in two groups. On the one side, there was a majority of health politicians and medical professionals. For them, the risk for the general public and the threat of epidemics weighed more severely than the risk for the individual and potential side effects of vaccinations. On the other side, there were critics of state immunization programs and compulsory vaccination such as anti-vaccinists, supporters of naturopathy, and liberals. They opted for the

individual to have the last say in risk management. Managing the risk of diseases and the risk of vaccinations should be matter of the citizen and not of the state, according to their opinion. This tension between promoters and critics of vaccination governance structures my article covering Germany between 1870 and 1970. In the following section, I will first examine how German state officials used collective risks as a resource of social normalization and mobilization and for the legitimation of the welfare state. Then, I will investigate the handling of individual risks, to which the negotiation of individual rights and the “securitization” of the individual body can be traced.

3. Collective Risks as Resource of the Precaution State

3.1 Desires for Risks: Legitimization and Professionalization

Since the medicalization in Europe during the nineteenth century, precautions against epidemics made their way up on the political agenda (Artenstein 2007). Vaccinations and containment of infectious diseases were an expression of a security promise that the modern state had to keep. Compliance with this promise seemed to be all the more significant, because at the time modern states were pushed in an international competition based on statistical methods. In particular the spread or rather the disappearance of infectious diseases seemed to relentlessly reveal progress or failure of individual nation states. In this context, it is astounding that not so much the disappearance of diseases was promoted in the nineteenth- and twentieth-century Germany public, but rather the continuous risk of persistent outbreaks: Ominous depictions of health risks appear in brochures, promoted leaflets, lectures, newspaper articles, or educational films. What sense did such risk-representations make that fueled fears in the population and questioned the efficiency and legitimacy of the precautionary state? Would it not have been more appropriate to celebrate the withdrawal of epidemics as a success story of modernity and the state itself?

The history of vaccination against smallpox provides us with a first answer to this question. In 1874, the German Reichstag approved the *Reichsimpfgesetz*, the Vaccination Law. This law declared, for the very first time, vaccination an obligatory measure throughout the whole German empire. Ever since then, all Germans were to be vaccinated at the age of one and again at the age of twelve against smallpox. The impressive success of compulsory vaccination and the successive vanishing of the disease turned out to be equally a blessing and a curse for state actors. Smallpox seemed to become a forgotten disease. Already at the end of the nineteenth century and just twenty years after introducing the vaccination act, smallpox was barely mentioned among Germans. “Today,” one physician wrote in the *Hannoverscher Courier* in 1893, “the horrors of smallpox have fallen almost into oblivion.” Roughly two decades later, Johannes Breger

from the Imperial Health Office, the *Reichsgesundheitsamt* (the predecessor of the later *Bundesgesundheitsamt*, Federal Health Office) even warned of a collective forgetting:

It is a conspicuous fact that in the memory of the German people, the horror and atrocities of the smallpox epidemics of former years actually vanished completely. Yet it is only four decades ago that we had to deplore a severe smallpox outbreak in the years 1871-72, which has claimed the lives of no less than 162,000 people (Breger 1911).

With the disease of smallpox also public memory about it seemed to disappear.

It was this fear of forgetting that induced state actors as well as health officials to conjure up the risk of smallpox from the turn of the nineteenth century onwards. Those working in the medical profession in particular saw it as a means for establishing self-importance. A brochure from 1907, for instance, reminded the German public

that the dragon of the smallpox threat is only sleeping, but not killed yet. One spark thrown into the highly flammable material – the unvaccinated – could cause a new fire kindle any time [...]. There is always primary explosive material and to ensure there is no lack of sparks, our neighboring countries take care of this, who do not enjoy an equal vaccination law as in Germany and for whom the saying goes: ‘The most pious cannot remain in peace, when the evil neighbors do not like it.’¹

In such leaflets of warnings, the risk of smallpox seemed almost omnipresent. Brochures like the above-mentioned, articles, and presentations of doctors designed a threatening future that on the one hand was nourished by the vaccination fatigue of the Germans, and on the other hand from the negligence of its neighboring states. In particular, medical doctors made it their task to keep the fear of the risks of smallpox as the “most serious scourge of mankind” alive in the Germans. For example, the German Medical Assembly, the *Deutscher Ärztetag*, made use of the fire metaphor in their appeal for vaccination in 1913 too: “The situation here is as with the fire hazard. [...] What use is it for me to build a fireproof house [...] if the neighbor acts recklessly with kerosene, fuel wood and such. In a fire even the best fire department is no longer of good use.”² There are those interpretations of “Risk as Moral Danger” (Lupton 1993), with which medical experts and politicians tried not just to normalize healthy and social behavior, but to mobilize the people as well. Vaccination fatigue was stigmatized as a risky and improper conduct that increased the social pressure on the individual. The emphasis of a permanent risk emanating from careless citizens

¹ Bundesarchiv Berlin (in the following: BAB), R 86/1246, Brochure “Zur Jahrhundertfeier der Einführung der Schutzpockenimpfung,” Darmstadt 1907, 22.

² BAB, R 1501/111126, Report of the medical officer Cologne on the 39th conference of “Deutsche Ärztetag” in Elberfeld, 4 July 1913, 27.

and “reckless” neighbors was part of a “normalization” strategy (Link 1997, 271-3) to impose immunity as a social norm.

The fact that such norms of social behavior were especially popular among doctors highlights another function of risk concepts. They were part of a narrative of the history of professionalization in the medical sector. This is especially true for doctors and medical officers. After all, since the introduction of smallpox vaccination, they occupied a key role in modern societies. Smallpox vaccination and compulsory measures of the Vaccination Law were “the first steps in the medicalization of the general public” (Sussman 1977, 575), who at the same time founded the reputation of physicians as “experts in questions of health and illness” (Huerkamp 1983, 630). To them, vaccinations were all the more important because other medical measures showed less success. In this respect, conjuring risk was in response to a general “trend of skepticism toward expert systems” (Myths 2004, 178; Beck 1998, 13) that did not come up only after the 1960s as one would expect, but many decades earlier. First, successes of doctors in the fight against epidemics appeared more effective in the background of constant risks (Bynum 2010, 122). The idea of lasting risks secured and improved the social position of the medical profession.

3.2 Disciplining the Past and the People

Risk concepts also were a resource of social mobilization. Conjuring lasting risks should increase the participation of the population in vaccination programs. For this reason, official announcements concentrated not so much on current improvements but on an uncertain future. Since the presence hardly gave cause for concern in epidemiological terms, provisions against *future* risks was a convincing argument for government intervention (Adam and van Loon 2000, 2). Images of an uncertain future increased the pressure for action on the individual that should make the immunization his personal project for the nation body, the *Volkskörper*. Such forecasts gained even more influence when stirring up the past. In a way, health politicians, scientists, and doctors employed some sort of memory culture and politics of history. In its decision to maintain the vaccination act of 1917 the Federal Council, the *Bundesrat*, for example argued with detailed descriptions of past epidemics:

In previous years, before the vaccination [against smallpox] was widely introduced, thousands of people in the German Reich died annually of this disease; many who escaped the smallpox death are distorted by the pockmarks [scars of smallpox]. If today, smallpox has become an almost unknown disease in the population, this is due to the Vaccination Act that was introduced everywhere.³

³ State Archives Oldenburg, 331-1 I/1334 Bd. 3, Resolution of the Bundesrat on Vaccination Act, 22 March 1917, 210-1.

Germany's healthy nation of 1917, the *Bundesrat* suggested, owed much to smart decisions of its past.

In Germany, such politics of history had two primary functions. On the one hand, the contrast between past and present underscored a success story of the precaution state. On the other hand, they also counted as evidence that the risk for the public had never entirely disappeared. This upheld the pressure to act on the individual. Disciplining the past served as a tool of disciplining and mobilization the people.

3.3 Personalization of Risk Concepts

Despite all these threatening scenarios, the fear of smallpox among Germans sank further in the first half of the twentieth century. According to national statistics, vaccination coverage declined, too. At the same time, compulsory vaccination against smallpox encountered more and more criticism in the press and among politicians. Such developments pointing towards smallpox vaccination fatigue put many German health officials and physicians on edge. In 1931, the Prussian Ministry of People's Welfare urged that "the German people must once again be ravaged by smallpox before it is open again in this sphere to reasonable considerations."⁴ Against this background, politicians, medical officers, and doctors no longer solely emphasized collective risks, but highlighted personal risks involved in not following through with smallpox vaccination programs. Heinrich A. Gins from the Robert Koch Institute (RKI), the state research institute for infectious disease, for instance, gave a lurid talk on the personal risks of smallpox in 1917. "The condition of the patient at the height of the pyoderma," Gins stated,

is very bad. Since the pustules on the face lead to a significant inflammation of the subcutaneous tissue, there is a strong swelling of the whole face, the eyes are swollen and can hardly be opened. Each movement of the mouth is painful, because the lips are densely covered with pustules. In order to alleviate this, the anguished patients scratch their skin, thus creating themselves the gateway for pus, which then can lead to foul-smelling pus instigation. Therefore, the room, in which a smallpox patient lies, is filled with the foul smell.

Contrasting such dire conditions of the non-vaccinated smallpox diseased, Gins continues to point out that "the conditions with regards to smallpox cases for the ones that have been vaccinated are quite different! The whole disease pattern is blurred and the unmitigated smallpox disease is less similar, the more the vaccination protection is still contained" (Gins 1917, 339-40). The deciding factor between personal misery or well-being, according to Gins, was solely the vaccination.

⁴ BAB, R 1501/3648, Report of Prussian Medical Committee for Medical Education for Prussian Ministry of People's Welfare, 20 July 1931, 3.

Individual episodes of the illness stood at the center of publications rallying for vaccination. They made personal risk very concrete. Since the 1920s, related press articles, brochures, leaflets, and even radio broadcasts accumulated throughout Germany. One could not only *read* about the effects of smallpox, as in a typical leaflet of a physician in the mid-1920s. Moreover, the leaflet illustrated the risks for individuals with photographs of smallpox patients that went into detail thanks to corresponding explanations. Smallpox was orchestrated as a

contagious disease that is characterized by a skin rash with high fevers, which can be recognized clearly on the pictures. [...] In all severe cases it will cause death with violent symptoms, while in milder cases and with a more favourable starting point, disfigurement by scars of the face and other parts of the body, often also resulted in blindness.⁵

In such contributions, the personal risk could be felt almost physically. This feeling of individual concern was likely to have been the reason for an increase of such representations since the 1920s and 1930s. As an argument for vaccination, personal risks seemed more convincing than the risks for the *Volkskörper*. Surprisingly, the critical discussion of compulsory vaccination and the personalization of risk concepts still continued after 1933. In the Third Reich the legitimacy of the compulsory vaccination was even more frequently questioned by state actors. Debates about the risk for individuals (see Section 3.1) and the gradual loosening of compulsory vaccination helped the general trend of personalization. Since the mid-1930s, risk representations, more than ever, aimed at the invocation of “the preventive self,” which, out of own personal interest, should make immunization one’s own responsibility (Thießen 2013b).

3.4 Fear Management: On the Interplay of Downplaying and Emphasizing Risks

Strategies of normalization, mobilization, and personalization remained *en vogue*, as vaccination campaigns against polio since the 1960s show. In an example from Hamburg, risk management as an impulse for mobilization can be studied as if examined under a magnifying glass. In September 1960, the *Hamburger Morgenpost*, a local newspaper of Germany’s second biggest city, sent out the anxious message that “the number of cases of polio in the city continues to increase,” with the result that even “measures such as class closures” would be discussed. The headline of the article brought these anxieties to the point: “Hamburg is in the danger zone.”⁶ Among health and school authorities, the article aroused a sheer outrage. Particularly indignant was State School Inspector Matthewes: “This report is really irresponsible and only in-

⁵ BAB, R 86/4639, Leaflet of Dr. Hillenberg on Smallpox and Vaccination, 1926.

⁶ *Hamburger Morgenpost*, Kinderlähmung: Hamburg noch im Gefahrenbereich, 13 September 1960.

tended to create worries among the parents and in the schools.” Matthewes’ fear of worries among the people of Hamburg was well-founded. At that time in 1960, the introduction of a new polio vaccine created massive problems in the Federal Republic (Lindner 2004). The risk of a polio disease, the *Morgenpost* warned of, was thus a real threat, both to the health of the German population as well as for state legitimacy.

Surprisingly, Hamburg authorities were much more receptive towards the presentation of health risks two years later. In 1962, all schoolchildren received a “Letter to Parents” by the health authorities that described the high risk of polio in detail:

Of all the infectious diseases the most dangerous is the communicable polio (poliomyelitis) that is feared particularly because of its unpredictable course. Unfortunately, many cases of the disease are very fatal. That is why every polio patient is at risk of lasting infirmity with muscle atrophy of paralyzed limbs. Possibly, the patient will also suffer from respiratory paralysis with live-long residence in the iron lung [a ventilator], resulting in a kind of helplessness that requires constant nursing care. Such a threat weighs heavy on all children and young people and, increasingly, also on adults.⁷

In order to keep the danger in every readers mind, the word “threatened” (*bedroht*) in this leaflet was not only placed centered, but also put in bold and underlined.

How can we explain this surprising change in communicating health risks? Why were warnings about the dangers of polio in 1960 a problem for Hamburg authorities while they described the dangers in detail in public in 1962? The answer is at hand: In 1962, a state vaccination program was introduced that took up the fight against polio. The risk described in the letter to parents was none, really, if only one would be immunized, as the leaflet added at the end itself: “Nevertheless, the poliomyelitis is not inevitable, because there is a preventive measure: the vaccination.” Only at a time when state actors could rely on effective preventive measures, the health risks became an argument for them in a twofold meaning. On the one hand, it demonstrated the state prevention expertise. On the other hand, it mobilized concerned parents who were to take immunization of their children into their own hands. Risk concepts and the securitization of polio thus went hand in hand. Moreover, with the decrease of polio, highlighting health risks increased as a factor of social mobilization. Cass R. Sunstein named this strategy of modern states “fear management”; a strategy that intends to make people pay more attention to risks that so far have been ignored (Sunstein 2005).

With “fear management” in mind, one can understand why notorious strategies from the times of the Empire still remained *en vogue* in the Federal Republic.

⁷ State Archives Hamburg, 361-2 VI, 1312, “Letter to all Parents,” Leaflet of Public Health Service of the City of Hamburg, April 1962.

lic, as the further history of polio vaccination shows. When, in the mid-1960s in a Parliament debate (of the *Bundestag*), the CDU deputy Johann Peter Josten wanted to honor the success of the vaccination program and pointed out that “this disease has been virtually eliminated”; the Federal Ministry of Health immediately hit the brakes. States secretary Walter Bargatzky cautioned against such optimism and even explicitly questioned in the *Bundestag* that the “epidemic is finally defeated.” He was particularly interested in such “warning,” “because [he] want[ed] to avoid that the willingness for voluntary vaccination, to which [they] owe[d] this success, somehow could go down.”⁸ In a nutshell, risk concepts were a resource of state health policy, because they increased the participation in vaccination and justified government intervention. Health risks for public only played a major role if an effective risk management stood ready. Precisely because in the 1960s the actual risk of polio sank, the demand for publications grew among experts which should have kept a continued risk perception among the Germans awake.

The connection between risk concepts and mobilization becomes obvious also in the handling of other diseases throughout the nineteenth and twentieth centuries. Despite increasing numbers of disease incidences of typhus (*Fleckfieber*) since the beginning of the Second World War, for instance, official publications of the early 1940s downplayed the risk of this disease (Süß 2002). Such downplaying is easy to understand. After all, the costly vaccine production in Germany during the Second World War could at no time keep pace with the need for immunizations (Süß 2003, 223-41). Also in the handling of rubella, measles, and mumps, the disease risk since 1970s became a public issue only once the effective vaccines stood ready. This maneuvering was an expression of state risk and anxiety management that David Denney has aptly described: “Governments design Risk communication to defuse panic reactions within the community, and to build trust and credibility in risk regulations and risk analysts” (Denney 2005, 66).

To what extent fear management obeyed tactical interests can also be observed in a last example: the boom of the influenza topic in the twentieth century. Although the “Spanish Influenza” caused between 20 and 50 million deaths worldwide in the years 1918-19, German official announcements on influenza remained remarkably cautious. Apart from that, this observation is not only true for Germany (Michels 2010). Recent research explains the astounding restraint in worldwide public relations with the fact that there have been no effective precaution and therapy measures since after the First World War. That is why this restraint ended in the 1960s. Thanks to the development of new vaccines, the awareness for risks now increased in health politics and in public (Witte 2014). This change is reflected in a brochure for vaccination of the

⁸ Minutes of Deutscher Bundestag, 5 May 1965, 9002.

German Green Cross, the *Deutsches Grünes Kreuz* from 1969, which even compared the influenza to the plagues and recalled dark former times:

What a momentous influence on the individual and their family the influenza or the flu virus can have, thus proves the fact that under the conditions of the present time, an influenza epidemic is quite comparable with the devastating epidemics of the Middle Ages.⁹

The mutation of influenza to “Mother of all Epidemics” (Taubenberger and Morens 2006) and increased attention to the risk of disease as a public threat therefore occurred only at a time when vaccines against influenza were available.

Even though the precaution state drew its legitimacy from the protection of the collective *Volkskörper* since the nineteenth century, a personalization of risk has been noticeable since the 1920s and 1930s. On the one hand, everything remained very much the same in the second half of twentieth century. The mobilization of the population and the demonstration of state competencies were and are still important objectives and obey the public presentation of risks. On the other hand, the awareness for the risk of other diseases grew both because of the fear management and due to a general securitization. Thanks to new vaccination programs in the 1960s, the awareness for risks increased that had so far played a minor role. Since the introduction of new immunization campaigns against polio, flu, measles, and rubella, all these diseases entered as topics for daily conversation for Germans, whose risk perception thus extended.

4. Negotiating Individual Risks, Rights and Maturity

4.1 “Vaccination Damages” as a Political Projection

It was not just the risks vaccinations *reduced* but also the risks *of* vaccination that have played a major role since the nineteenth century. For critics of vaccination programs, not necessarily the infectious disease represented the threat, but rather vaccinations in general and the compulsory vaccination in particular. After all, compulsory vaccination justified even state intervention into the physical integrity of individuals. This intervention was indeed a health risk, because in some cases vaccinations showed side effects and, in rare cases, even led to death. Even still, in the mid-1970s, the Federal Health Office (*Bundesgesundheitsamt*, BGA) counted up to 20 children who died every year in the Federal Republic from the side effects of smallpox vaccination. In addition, there were about 40 or 50 cases of severe “lasting damages” and about two hundred further “vaccination damages” that annually were recognized as the

⁹ Bundesarchiv Koblenz (in the following BAK), BW 24/2090, Report of Deutsches Grünes Kreuz, 1969.

results of smallpox vaccination (Weise 1974, 4). With the introduction of compulsory smallpox vaccination in the *Reichsimpfgesetz* of 1874, the individual risk was even higher. After all, due to unsanitary conditions during mass vaccinations, sometimes diseases like syphilis were transmitted. Side effects were debated intensively already during the time of the German Empire. Because of this urgent need for discussion, the Reichstag devoted five meetings on the compulsory vaccination in the spring of 1874. In a nutshell, the risk of vaccination raised fundamental questions and split the deputies of the Reichstag into two camps.

Representatives from the Social Democratic Party (SPD) and the Catholic Centre Party (*Zentrum*) were on the one side of the debate. They criticized the risk of side effects as a threat to privacy rights. Matthias Merkle, from the *Zentrum*, emphatically described this problem in the parliament: “Gentlemen, a truly liberal spirit judges here for freedom, the personal freedom and the freedom of the family! Gentlemen, I’m a declared opponent of state omnipotence, and this unmistakably occurs in the present law.”¹⁰ Even more outspoken was Merkle’s party colleague, August Reichensperger. He lined out the individual risks of vaccination with an everyday life example: “If you now imagine the scene that would occur when a couple of gendarmes [policemen] lead away an unfortunate vaccine opponent who will then be operated on by a surgeon with the assistance of the armed forces!” In this view, compulsory vaccinations were not less than a “more serious interference with the right of personality and the freedom of an adult man” and also an expression of a “guardianship of the state.”¹¹

In the other camp, among the supporters of a compulsory vaccination, such objections fell on deaf ears. August Zinn of the Progress Party strongly warned the critics of vaccination that “out of sheer respect for personal freedom” the public interest of vaccinations should not be overlooked. As the population is “educated only in a very inadequate manner” to overlook the health risk state, coercive measures were all the more necessary. For representatives of the Progress and the National Liberal Party, risks for individuals weighed less severely than the risk for the general public. This was all the more relevant, because in their opinion risks to the general public would increase without compulsory vaccination. Since vaccinations do not guarantee absolute protection, each “unvaccinated can be regarded as a threat for its environment.” In this view, the behavior of the anti-immunization lobby increased the risk for the general public and could be considered a “danger to the society.”¹²

This early insight into Reichstag debates already suggests that representatives were arguing with the side effect of vaccination on the principles of society. The risk for the individual acted as a projection screen where models of

¹⁰ Minutes of the German Reichstag, 14 March 1874, 337.

¹¹ Minutes of the German Reichstag, 3 March 1874, 256-7.

¹² Minutes of the German Reichstag, 6 March 1874, 237.

society were designed. In these debates, risk concepts became an argument in the dispute over civil rights and the interventionist state. Opponents of compulsory vaccination used the individual risk as an argument to scandalize state intervention. Proponents of compulsory in turn scandalized the refusal to vaccinate as risky behavior that threatens the public (see Section 3).

4.2 Transnational References for Risk Concepts

Despite the compulsory vaccination against smallpox was adopted in 1874 by a majority of the Reichstag parliamentarians, there were many opportunities for such debates in the following years, as well. The risk of compulsory vaccination was not only discussed in the SPD and in the Center Party. Clubs of vaccination opponents also debated compulsory vaccination in order to attempt to arouse emotions among the German public. “Who,” for instance, asked a member of the anti-vaccination movement from Hannover in 1901,

could be held responsible for such an intervention into the most sacred rights and duties of mothers before the judgment of the Most High? Is this [vaccination act] meant to be the regulatory protection for freedom provided by the Constitution?

This turned a health issue into a legal issue on state’s rights.

A “deprivation of freedom” through the compulsory vaccination appeared to vaccination opponents to be most scandalous, because in a European comparison, it was an exception. In fact, at least the members of the English Parliament had decided to abolish compulsory vaccination in the late 1890s. In England, the risk of individual side effects have weighed heavier than the risks to the public ever since (Hennock 1998; Durbach 2005). At the *Weltkongress der Impfgegner* (World Congress of Anti-Vaccination Movement) in Berlin in 1899, German vaccination critics used the English conversion as an opportunity to call for the abolition of compulsory vaccination in Germany as well. In a concluding declaration, the participants of the “World Congress” reached the result “that we consider the compulsory vaccination in its current form not quite worthy for the new century. This has been perceived in England and thus eliminated the compulsion for vaccination per se.”¹³

The Weimar Republic saw further attendance of the anti-vaccination movement. In the 1920s, hundreds of thousands of members gathered at clubs with vaccination critics. They also used international references as an argument to scandalize compulsory vaccination. In a brochure, Max von Niessen, a well-known vaccination critic, pointed to the majority of European states, where the risk of individual side effects of compulsory vaccination had already resulted in its abolition (von Niessen 1929, 4). Even in parliament, international comparisons for dealing with individual risks played a major role. In meetings of the

¹³ Deutsche Tageszeitung, Die Impffrage, 23 September 1899.

Prussian State Health Council (*Preußischer Landesgesundheitsrat*) or in the Imperial Health Office, advocates of compulsory vaccination encountered critics like the health politician Alfred Grotjahn (SPD) who considered compulsory vaccination to be “backward.” Comparisons with liberal legislations of other countries served Grotjahn as a reference to the right of the individual to judge health risks to become a standard of all “civilized nations.” Grotjahn demanded appropriate standards for Germany, as well: “What prevents us to do it as the English do it?” (Prussian State Health Council 1926, 94).

4.3 Personalization and Individualization of Risk Concepts

Just like proponents of compulsory vaccination, its critics equally employed the strategy of personalization risk concepts, at least since the 1920s. Until the outbreak of World War I, most anti-vaccination movements circulated statistics on the total number of vaccine damages in the parliaments. In the Weimar Republic, they increasingly used representations of individual fates and even photos of the “ones who suffered damages from vaccination” to document personal consequences of individual risks. With this kind of personalization, it seems that critics of vaccination and supporters of vaccination were closer in strategy than they would have liked (see Section 3.3). After all, both sides took advantage of the staging of child death to justify their risk concepts: Proponents of compulsory vaccination fanned fears of *disease* with images of sick children whereas critics of compulsory vaccination fanned fears of side effects with everyday vaccination damages.

Since the mid-1930s, critique of compulsory vaccination was hardly heard any more in the German public. Although many medical officers and NSDAP members were critical about the compulsory vaccination, public criticism of state measures was regarded as inopportune in the Third Reich. In everyday life, however, the criticism that had been cultivated during the Weimar Republic was quite effective. Since 1935, several derogations were introduced with which the compulsory vaccination was gradually eased. Apparently, the individual risk of the *Volksgeossen* in the Nazi state had had quite an impact (Thießen 2013b).

In the Federal Republic, public debates about compulsory vaccination re-appeared. Following the adoption of the German Basic Law (*Grundgesetz*), the question was whether governmental coercive measures were compatible with the fundamental rights now guaranteed by law. Did the government still dare to expose its people to the risk of vaccine damage in order to protect the public? In 1952, the Federal High Court (*Bundesgerichtshof*, BGH) provided a clear answer to this question:

The compulsory vaccination orders an interference with the physical integrity of individuals in order to keep away damage from them and the people’s entirety of the risk of smallpox. The vaccination of entire ‘*Volksgemeinschaften*’

[people's communities] has brought the smallpox epidemics to a standstill in many European countries.¹⁴

The BGA assented to this judgement in a clear statement:

In combatting smallpox it is not about maintaining the health of the individual, but to protect the whole population. A judgment on the combat against a danger to public safety, like the smallpox, cannot be left to the discretion of the individual.¹⁵

For state actors in the late 1950s still, the risk for the general public – the potential outbreak of a disease – weighed heavier than individual risks of side effects and the interference with the fundamental rights of the citizen. And even more important: For the Federal Health Office and the Federal High Court, risk management was the domain of the state and not of the individual. In their opinion, the population was not capable of considering risk aspects.

Numerous letters from the German public to the federal and state ministries showed that such a paternalistic attitude no longer appeared to date. For example, a woman from Hamburg wrote in 1961 to the Federal Ministry of the Interior:

In the newspaper I read that you criticized the passivity of the population on the issue of vaccination. Before one decides to get a vaccination, one does have to get clear of the pros and cons [...]. One does not simply get vaccinated just because some authority says 'Do it.' I would be very grateful, if you would send me appropriate educational material.¹⁶

The desire for an individual risk assessment, for "information" and "maturity" found resonance among health policy-makers and medical officers in the 1960s. In 1966, the newly endowed president of the BGA, Werner Anders, raised a fundamental question in a debate about compulsory vaccination:

What would happen if the compulsory vaccination would be repealed in Germany? I believe it is a question of maturity of the population [...] and that we can less by force than by a meaningful education and informing of the population, prompt them to overcome this vaccination fatigue.¹⁷

Such considerations highlight a change of risk concepts over the course of the 1960s and 1970s. With the leave of the planning paradigm, a generation change in departments and local boards, but also against the backdrop of a denationalization of public health (Lindner 2004, 221-81), the risks for the general public lost the power of persuasion compared to those for the individual. The right for an individual "finding balance between different risks" (Bröckling 2008, 40) became now a question of responsibility, which demonstrated its limits to the

¹⁴ Report of Bundesgerichtshof on vaccination act (VRG 5/51), 25 January 1952, 5.

¹⁵ BAK, B 189/14107, Draft of a Report of BGA on vaccination act, 1957.

¹⁶ BAK, B 142/1897, Letter of a woman of the city of Hamburger to Federal Ministry of Interior, 19 November 1961.

¹⁷ BAK, B 189/14107, Response W. Anders, BGA, at Federal Ministry of Health, 5 August 1966.

interventionist state. Ever since, not only the risks that were *banned* by vaccination played a role, but also the risks that were *caused* by it.

4.5 Risks in Times of Globalization

This change since the 1960s was promoted by a threat that was actually not new: airplanes. But in terms of public health, airplanes were a nightmare. Until then, experts in their fight against infectious diseases had been happy about the slowness of ships. Long cruises offered a certain guarantee that diseases broke out long before their introduction and could be isolated directly on the ship. The increase of air travel in tourism and trade destroyed such safety concepts, as the Hessian Ministry of Interior warned in 1956: “Our modern transport, which let the global distances shrink to almost nothing, can reintroduce the epidemics within a few days, even hours.”¹⁸ When smallpox was introduced into West Germany for the first time by a tourist in 1959, there was great excitement. The magazine *Quick* reported for example with a multi-paged exclusive story on the “Smallpox Battle of Heidelberg.” This battle had revealed “an alarming threat: In the jet age a long believed dead disease could come back to us overnight.”¹⁹

Against this danger, not even those quarantine measures and “vaccination wards” helped any longer which were introduced in German airports in the 1960s. In 1970, Federal Family and Health Minister, Käte Strobel, came to a sobering conclusion which laid open the failure of classical precautionary concepts: A control of the travelers “at times of peak traffic could only be carried out by sampling.” More successful than quarantine measures and large vaccination programs seemed to be appeals to the new risk group. Since the mid-1960s, posters, leaflets, and brochures from governments and healthcare associations focused on international travelers. They promoted voluntary vaccinations among the Germans with global threats. This voluntariness included an individual risk management. Popular leaflets like “20 Questions – 20 Answers,” which were passed out since the 1960s, made potential side effects of vaccinations explicitly a topic. They addressed the “responsible” citizen, the “preventive self,” who would take their precaution independently and voluntarily into their own hands.

5. Conclusion

Although social research commonly understands “modernity” as the context of the risk society, it focuses mainly on developments since the 1970s and 1980s.

¹⁸ BAK, B 142/44, Leaflet of Hessian Ministry of Interior, “Den Kopf in den Sand stecken”, 1956.

¹⁹ BAK, B 142/1893, *Quick*, Seuchen-Alarm für Europa, [n.d., approx. early 1959].

At the center, there are debates around “new social risks” of post-industrial societies (Armingeon and Bonoli 2006) on pollution, biotechnology, or risk technologies, where the “the shapes of risk society” are outlined (Beck 1991; Franklin 1998; Adam, Beck and van Loon 2000). A history of vaccination, however, makes clear that both “risk society” and “modernity” could and have to be traced back much further. Ever since the nineteenth century the emergence of modern welfare states promoted a constant negotiation of social and individual risks. In these debates, as I have shown in this contribution, state actors, health officials and the public discussed not only risk in the narrower sense, but also the principles of modern society as such: topics concerned present diagnoses and future designs, risky and healthy behavior and the relationship between state and citizen.

In this respect, a historiography of risk society is worthwhile for at least three reasons. First, a risk history can historicize current debates. Public debates therefore seem amazingly familiar when it comes to compulsory vaccination against measles in the US, Great Britain, and Germany since 2013 (Thießen 2015), or to the side effects of vaccinations, when viewed in historical perspective. A risk history sketches out traditions and continuities which can be embedded in the risk societies of the 1970s and 1980s. Second, a risk history pays attention to specific perspectives on changes of risk concepts and their contexts. A history of vaccination immunizes us against simple causalities and teleologies to which modernity is often shortened. From a historical perspective, it becomes apparent that processes of nationalization, bureaucratization, individualization, privatization, or liberalization do not inevitably follow turning points or phases that are commonly believed. Finally, it becomes visible in historical perspective how and why risks are constructed. That risks are a social construct has reached a consensus in the social sciences. However, historical approaches can provide a new empirical basis for these findings. Based on historical sources, the construction of risk in government departments, public authorities, and the media can be traced among experts and in everyday life. A risk history extrapolates why risks were a resource and still are. It also shows, what past societies thought to be “good” or “bad.” In this respect, a risk story wins little insights into health risks in the narrower sense. Instead, it gives us insight into transition of modern societies from the nineteenth century until today.

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